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FIELD SERVICE AND SUPPORT

PROGRESS REPORT NO. 14

1 MARCH 1960 THROUGH 31 MARCH 1960

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I. INTRODUCTION

This report describes the March 1960 activity for Contracts A-102, [REDACTED] and HF-CT-699.

II. CONTRACT A-102

A. WORK PERFORMED FOR CUSTOMER A

1. Sustaining Engineering

a. Field Service Bulletins

Two Field Service Bulletins were in progress during this reporting period. Table 2 shows the status of the current Field Service Bulletins.

b. Engineering Change Proposals

A Preliminary Engineering Change Proposal (PECP) was completed during March. PECP-7AC proposes a production redesign of System-3 encapsulated assemblies Z701 and Z703 for the purpose of achieving a unit that can be produced in small quantities at a reasonable cost. The new units would have increased reliability and would be repairable in the field.

c. Technical Information Bulletins

During March one Technical Information Bulletin was published. The bulletin describes the deletion of a diode in Z1813, a capsule in the System-3 Third Local Oscillator Subassembly. Under certain conditions the diode prevented normal operation of System 3.

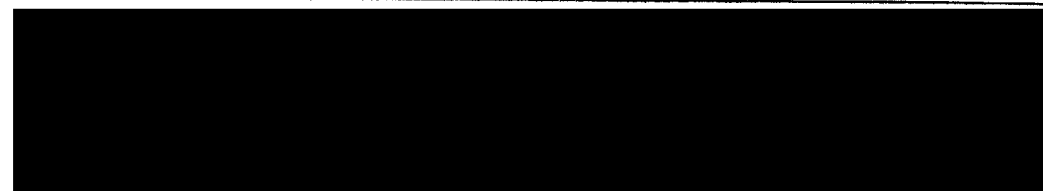
d. Information Recorder Reliability Program

During 1959 Customer A, Detachment B, had [REDACTED] 25X1D
 scheduled flights using one or more Information Recorders.
 Ninety-four percent of these missions had no inflight
 recorder malfunctions. Of the remaining flights, there were
 two to three times as many malfunctions in the unpressurized
 areas as in the pressurized cockpit installation. More
 detailed data are shown in Table 1.

TABLE 1
 RECORDER FAILURES, DETACHMENT B

Period	Total Flights	Percentage of Failures
1 June 1958 to 31 March 1960	[REDACTED]	7.5
1958	[REDACTED]	11.6
1959	[REDACTED]	6
1960	[REDACTED]	4.7
Installation Location	Total Flights	Percentage of Failures
[REDACTED]	[REDACTED]	[REDACTED]

25X1D



The Contractor has completed laboratory tests on an inexpensive modification to the Information Recorder that may prove to be a major breakthrough in improving the reliability and decreasing the preventive maintenance requirements of the unit. This modification consists of replacing the oilite bearings in the Capstan Drive Assembly (MP-10050) and Jam Roller Assembly (MP-10626) with ball bearings. This change significantly reduces the load on the capstan motor and also reduces the tape flutter and wow.

Three sample field modification kits were ordered on production lists to be sent to the field for operational tests. Further action depends upon the results of the field evaluations now being conducted by Customers A and C.

e. Contractor Technical Service Personnel Loan

A Contractor technician on Customer D assignment was loaned to Customer A, Detachment C, for 30 days to assist with the System-3 IRAN Program. This temporary duty was completed on 31 March 1960.

2. Repair and Retrofit

a. The Repair and Retrofit Inventory for March is listed in Table 2.

b. System-3 Local Oscillator Subassembly

A means of reducing the number of inflight failures of the System-3 Third Local Oscillator Subassembly is being investigated. This procedure, suggested in a field report, consists of heating the subassembly to 185 degrees Fahrenheit and subjecting it to various mechanical stresses. The board, after being allowed to cool, is then reheated

and restressed. Many potential inflight failures may be detected by this procedure and cured before the flight occurs.

B. WORK PERFORMED FOR CUSTOMER C

1. Sustaining Engineering

a. Phase-Out of System 4

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At the request of the Weapon System Project Office (WSPO), [REDACTED] attended a meeting in Del Rio, Texas, to help formulate plans for the phase-out of System 4. The following plans were approved:

- (1) System 4 and associated Data Reduction equipment are to be "mothballed". ✓
- (2) Packing and crating are to begin immediately, and the entire operation is to be completed on or before 20 June 1960.
- (3) The Contractor's representative will be responsible locally to insure proper packing and crating.
- (4) The Contractor will assist the WSPO in seeking other uses of the equipment.
- (5) Two Contractor representatives will be returned to the plant on 30 April 1960.
- (6) Two Contractor representatives will be returned to the plant on 1 June 1960.
- (7) Five Contractor representatives will be retained at the using organization through fiscal year 1961.

b. Projects Common to Customer C and Customer A

The Engineering Change Proposal, Technical Information Bulletin, and Information Recorder Evaluation projects are common to both Customer C and Customer A. They are discussed under Work Performed for Customer A, Sustaining Engineering, paragraphs b, c, and d.

c. Data-Reduction Equipment

In order to evaluate methods of increasing the utility of the Data-Reduction Racks, an E Rack (MP-10827), an A Rack (MP-10959), a B₁ Rack (MP-10927), and a B₂ Rack (MP-10948) were obtained on a 90-day GFE loan. Customer C supplied the E Rack and Customer A supplied the remainder. At the close of this reporting period the racks had been installed in the laboratory.

2. Repair and Retrofit

a. Inventory

The Repair and Retrofit Inventory for March is listed in Table 2.

b. System-3 Third Local Oscillator Subassembly

For a detailed description, refer to Customer A, Repair and Retrofit, paragraph b.

C. WORK PERFORMED FOR CUSTOMER D

With the exception of the publication of one Technical Information Bulletin, activity was confined to the routine analysis of field reports and failure reports. For a description of the content of this bulletin, see Customer A, Sustaining Engineering, paragraph c.

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III. CONTRACT [REDACTED]

IV. CONTRACT HF-CT-699

The Call Contract Inventory for March is shown in Table 3.

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TABLE 2

FIELD SERVICE BULLETIN AND MODIFICATION KIT STATUS
AS OF 31 MARCH 1960

Item	Customer	Field Service Bulletin Number	System	Unit	Description	Field Service Bulletin Status	Mod Kit Status
1	A	S603-2A	6	S603 Dual Channel Amplifier	Traveling Wave Tube Filament Voltage Corrections	In Progress	N/A
2	A	S603-4	6	S603 Dual Channel Amplifier	Power Supply and Tangential Sensitivity Adjustments for the S603 Dual Channel Amplifiers (Confidential)	In Progress	N/A

TABLE 3

REPAIR AND RETROFIT INVENTORY FOR MARCH 1960

Customer	Rework Units Outstanding on 1 March	During March			Rework Units Backlog on 31 March
		Units Received	Units Shipped	Units Nonreparable	
A	58	7	7	0	58
C	24	3	12	0	15
D	0	0	0	0	0

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TABLE 4

CALL CONTRACT INVENTORY FOR MARCH 1960

Customer	Unit Backlog on 1 March 1960	Requested During March			Units Delivered in March	Unit Backlog on 31 March 1960
		Production Lists	Total Line Items	Total Units		
A	115	9	40	247	89	273
C	542	5	17	703	360	885
D	0	2	2	2	0	2

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